

# Developing the Model of National Qualification Framework : A Case Study for Fifth Level in Tours and Travel Diploma

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## Abstract

*The main goal of this paper is to obtain the model of fifth level of national qualification framework (NQF) in tours and travel diploma. The soft system methodology is applied by using some methods. They are analytic network process (ANP), root definition, rich picture, elements and their interrelationships. The experts confirmed the model of fifth level qualification can be obtained, provided that Ministry of Tourism develop the scheme together with National Certification Authority. The approved scheme endorsed by Ministry of Education to be implemented in tourism college. Meanwhile, Education National Standard Body shall issue the guidelines for the scheme. The Higher Education Accreditation Body refers to this scheme during accreditation process. The college conducts the planning, execution on the scheme based on competence training and assessment. On the other hand student shall proactive to practice and prove their ability and competencies. The Ministry of labour issuing the recruitment and remuneration guidelines for qualification, while tours and travel companies inform student about the job vacancy.*

*Key words: Assessment, Diploma, Level of Qualification, Scheme, Tours and Travel*

## Abstrak

*Tujuan utama penelitian ini adalah membuat model kerangka kualifikasi jenjang lima diploma tiga usaha perjalanan wisata. Adapun metodologi penelitian yang digunakan adalah soft system methodology yang terdiri dari metode ANP, root definition, rich picture, elemen dan keterkaitannya. Hasil penelitian disepakati para pakar bahwa model dapat menghasilkan lulusan jenjang lima dengan keterkaitan para*

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*pemangku kepentingan. Adapun keterkaitan awal dimulai dari Kementerian Pariwisata membuat skema sertifikasi bersama Badan Nasional Sertifikasi Profesi. Setelah itu Kementerian Pendidikan membuat pedoman pelaksanaan kepada para pihak terkait baik perguruan tinggi, Badan Akreditasi Nasional dan Badan Standar Nasional Pendidikan. Setelah itu perguruan tinggi membuat perencanaan, pelaksanaan, dan asesmen sesuai skema berbasis kompetensi dan asesmen. Perguruan tinggi memastikan keluaran mencapai jenjang lima dengan melakukan asesmen secara formatif dan sumatif. Untuk itu peserta didik proaktif mengikuti proses pembelajaran dan asesmen dan mencari informasi lowongan pekerjaan pada perusahaan perjalanan wisata. Sementara itu Kementerian Tenaga Kerja membuat pedoman rekrutmen dan remunerasi berbasis kualifikasi.*

*Kata kunci: Diploma, Jenjang, Kerangka–Kualifikasi, Skema, Usaha-Perjalanan-Wisata*

## 1. Introduction

Indonesia has developed more than 240 professional competency standards in sectors and subsectors ever since 2004. The implementation of these standards mostly in unit or cluster for operator, in tourism sector. While competency standards were developed based on map of competencies comprehensively, mostly, from level one up to nine. The presence of these standards were not significant yet. While the state law number 12 in the year of 2012 on higher education has addressed the quality benchmark is based on NQF (Menkumham 2012). NQF is based on national competency standards. Competency standards were developed by sectors, professional experts, industries and related stakeholders. In short, the golden competency standards on hand are stored in warehouse, while Shimer (2006) in his paper induced providers and end-users to have cooperation to avoid mismatch.

The cooperation can be easily interpreted that companies standards are being delivered by colleges to student to close the gap of competencies needed. The researchers are keen to pay attention on this matter that motivate themselves to conduct this research. Moreover, the selection of the case study is due to its urgency, as tours and travel sub-sector will follow free-flow of mode four of labour movement by 2015. According to Association of South East Nations (ASEAN) the tourist projection will be increasing to ASEAN from 65 million in 2009 up to 90 million in 2015 (ASEAN 2008). ASEAN blue print provided the thoroughly information that professionals in some sectors are free to find job within ASEAN members as far as they possess certificate of competency. The fifth level is categorized as professional skilled-labour.

The fifth level equal to analyst or technician at work place. This level has a number of competencies that able to apply standard or non standar procedures with measureable performances. They are able to lead a team, based on task assignment. This description is stipulated in President Regulation Number 8 on National Qualification Framework (Menkumham 2012). Recognition on a number of skills, knowledge, attitude and experiences against qualification framework is valuable for professional (Tuck 2007). Tuck also recommend to maintain the currency of competency. The competency can diffrentiate the productivity of professional. Grollmann *et al.* (2007) indicated that two ways to develop qualification. The first, is based on occupation. The second, is based on target of development. In this particular research the way of development is target based on the fifth level.

Keating (2009) suggested that the relationship between school, students and companies at work place as end-users shall be encouraged. It is proper to discuss what are the needs between the parties. The stipulation as stated in higher education state law, on quality reference is really fantastic. This state law encourages the implementation of the president regulations on NQF. We need to realize NQF in benefitting all stakeholders in human resources development.

The time based traditional education system to obtain skill and knowledge depending on lecturers as the sole source of information. This practice give no room for students. Park (2009) said in pilot training system, a trainee can have a lot of practices to earn knowledge, skill and experiences. A candidate of pilot may earn competencies needed prior to duty assignment. In John Hopkins University, a nurse or medical doctor can stay at the hospital for study and practices to earn experiences(Sullivan 1995).

Cumming & Maxwell (1999) stated that self practice in campus is a contextualization of assessment principles. A real practice under observation of other people is authentic. The other matters are lie on validity, reliability, flexibility and fairness of assessment. These criterion basis can be done by comparing all activities with performance criteria as set out in competency standards (Hill, Hill & Perlitz 2011). The other assessment method is observation at work place. This is the model that has been applied at surgery specialist under supervision by Kolegium (UGM 2004).

Gamerschlag (2011) find in his research that knowledge based economy is the main element for success. The asset earned are intangible ones. Those intangible asset are located and built in human resources. In Taiwan, according to Poon & Brayer (2009), the revolution change on hospitality curriculum model. It has been done by separating bakery curriculum from hospitality diploma program. Specialization in bakery has brought a success story in Taiwan. At first, it was limited to wheat process. Afterward, all kind of derivative products were made as an industry of cake and bakery, in Taiwan. This model of specialization is a revolution in curriculum change as far as it aims to a higher level of qualification.

A Model, according to Saaty & Peniwaty (2008) is a representation of reality by simplification. Simplification may be made in iconic, analog or symbolic. Iconic means a physical representation of several matters in an ideal form such as picture, or prototype or map. An analog model represents a dynamic situation by time motion and nature. The third type of model is a symbol or figures that represents the reality such as equation. However, it is not guaranteed that all decision making can be solved easily. A system that all set of elements in unity to achieve the goal is applicable to invent a model that represent a complex reality (Dettmer 2007).

## 2. Methodology

System methodology or systems approach refers to a set of conceptual and analytical methods used in systems thinking and modelling (Elias & Cavana 2002; Maani & Cavana 2000). The methods applied in this methodology consist of analytical network process, root definition, rich picture and focus group discussion.

## 2.1. Analytic Network Process (ANP)

The respondents consist of eight person experts from four government instances, standard society and assessor association. The respondent were chosen purposively (Cooper & Schindler 2008; Satori & Komariah 2011). The process began by developing comparison-pairwise questionnaire. Each pair scaled from one to nine. The scale One represents less priority while the nine represents the most extreme high priority. The tools of analysis technique using superdecisions software, developed by Saaty (1999). There are 13 clusters related to each node of competency parameters. Within the clusters, some of them were interrelated each other. The conceptual framework thinking is drawn hereunder.

## 2.2. Transformation by Root Definition and Rich Picture

The priority strategies are obtained from superdecision that needed to formulate root definition (Checkland & Poulter 2006). The result of ANP convey to the input of transformation. The PQR formula was applied to define root definition, where P represent the "What" activity shall be done to achieve the goal. Q represents "How" to achieve the set goal, and R represent "Why" we should do the activity. This process is done to improve our understanding of the real world by making models of it (Jackson 2003).

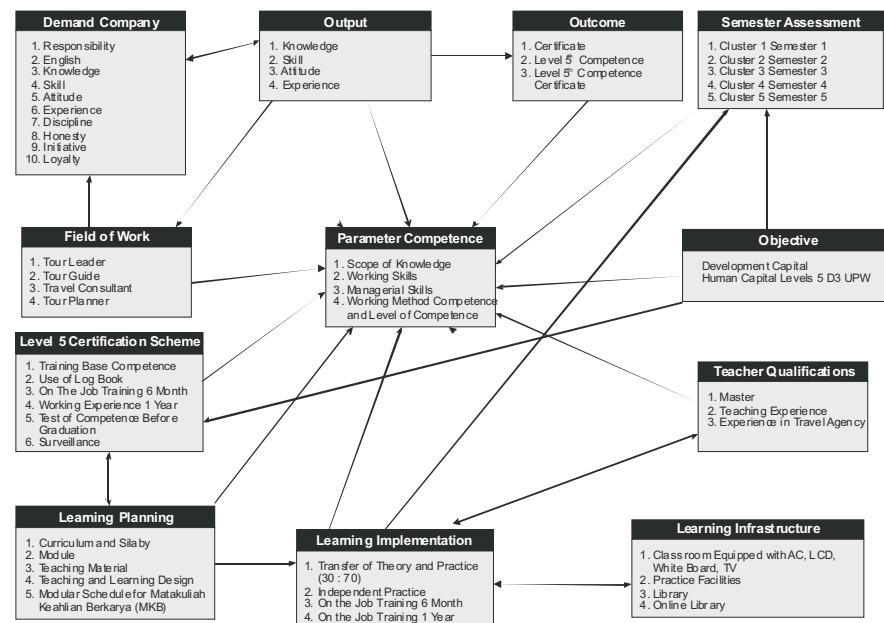


Figure 1. Conceptual framework thinking for ANP method

## 2.3. Focus Group Discussion

The focus group discussion consist of six person of experts as respondents that were chosen purposively, conducted. At first, there are nine elements decided. Afterward, the lines drawn to show their interrelationship and roles. At the end, the face validation was conducted to confirm that the model is done according to the result of focus group discussion.

### 3. The Result And Discussion

Collected data were processed by excel software to get geometric mean. Afterward, the input process then made to deploy Superdecisions software. Iteration process was delivered by software program. The results is presented in Table 1, below.

Table 1. Priority Strategy by Combination of All Respodents

Group	Strategy	Standardized
Certification scheme	1. Competency based training	<b>0.2173</b>
	2. Qualification assessment for levelfive prior to graduation	0.2024
	3. One year of experience	0.1622
	4. Six months on the training	0.1615
	5. Usage of log-book	0.1370
	6. Survaillance	0.1196
Planning of learning	1. Learning design	<b>0.2397</b>
	2. Modul	0.2193
	3Curriculum and syllabus	0.2159
	4. Learning materials	0.2097
	5. Delivery schedule for core comptencies	0.1154
Learning process	1. Self practices	<b>0.2796</b>
	2 Delivery of theory and practice proportion (30:70)	0.2508
	3. <i>On The Job Traininong one year</i>	0.2472
	4. <i>On the Job Training six months</i>	0.2224
Learning infra-structures	1. Laboratories	<b>0.3516</b>
	2. Library	0.2437
	3. Classroomwith AC, LCD, Whiteboard, TV	0.2204
	4. On line library	0.1843
End-users needs and wants	1. Skills	<b>0.1294</b>
	2. Attitude	0.1140
	3. Discipline	0.1096
	4. Honesty	0.1085
	5. Inisiative	0.0970
	6. Loyalty	0.0960
	7. Responsibility	0.0879
	8. Experiences	0.0875
	9. Knowledge	0.0872
	10. English	0.0828
Job division	1. Travel Consultant	<b>0.2820</b>
	2. Tour Leader	0.2662
	3. Tour Guide	0.2280
	4. Tour Planner	0.2239
Asesment per semester (formative and summative	1. Claster 4 semester 4	<b>0.2546</b>
	2. Claster 5 semester 5	<b>0.2546</b>
	3. Claster 2 semester 2	0.1823
	4. Claster 3 semester 3	0.1691
	5. Claster 1 semester 1	0.1394

The priorities of each cluster are found. The results at the first stage are preferred the only seven out of thirteen clusters with its individual priority. The other six clusters were regarded with the same proportion that no priority made inside.

Due to incompleteness of these priorities, then researchers separated the respondents answers by government instances. This is done due to the experts are also from the said government instances, as member of association as well. It is also aiming to save time and cost. The result is better as presented in Table 2, below.

Table 2 . The Results Based on Government Agencies or Ministries

Cluster	Strategy	Standardized				
		Ceficati on Body	Educa- tion	Tourism	Labour	Mean
Competency parameter	1. Skills	<b>0.2813</b>	0.2490	<b>0.3597</b>	<b>0.2441</b>	<b>0.2835</b>
	2. Capability and method acquisition	<b>0.3135</b>	0.2482	0.2344	0.2410	0.2593
	3. Knowledge	0.1982	<b>0.2509</b>	0.2726	0.2328	0.2386
	4. Managerial Skills	0.2070	0.2520	0.1333	0.2821	0.2186
Certification scheme	1. Competence based training	<b>0.2761</b>	<b>0.2194</b>	0.1689	0.1554	<b>0.2049</b>
	2. Asessment for level 5	0.1485	0.2176	0.1449	<b>0.2358</b>	0.1867
	3. One year experience	0.1679	0.1732	<b>0.1994</b>	0.1662	0.1767
	4. Usage of Log Book	0.2314	0.0994	0.1613	0.2012	0.1733
	5. Six month on the job training	0.1297	0.2020	0.1771	0.1554	0.1660
	6. Survaillance	0.0464	0.0884	0.1485	0.0859	0.0923
Learning infra-structures	1. Laboratorium	<b>0.2795</b>	<b>0.3254</b>	<b>0.3674</b>	0.2939	<b>0.3166</b>
	2. Class room with AC, LCD, Whiteboard, TV	0.1615	0.2249	0.3304	<b>0.3111</b>	0.2570
	1. Library	<b>0.2795</b>	0.2249	0.1884	0.2254	0.2296
Learning planning	2. On line library	<b>0.2795</b>	0.2249	0.1138	0.1696	0.1969
	1. Curriculum & Sillabus	<b>0.2762</b>	0.2253	0.2000	0.3280	<b>0.2574</b>
	2. Learning design	0.2210	0.2476	0.2000	0.2629	0.2329
	3. Modul	0.2661	0.2184	0.2000	0.1568	0.2103
	4. Learning material	0.1522	0.2476	0.2000	0.1630	0.1907
Qualification of lecturer	5. Schedule for core competencies	0.0844	0.0611	0.2000	0.0892	0.1087
	1. Work experience	<b>0.4318</b>	<b>0.4907</b>	<b>0.5175</b>	<b>0.3662</b>	<b>0.4516</b>
	2. Teaching experience	<b>0.4318</b>	0.2916	0.3363	0.3592	0.3547
	3. Education :Master	0.1364	0.2177	0.1462	0.2746	0.1937
Learning process	1. Self practice	<b>0.3283</b>	0.2475	<b>0.3526</b>	0.2165	<b>0.2862</b>
	2. Delivery, theory and practice (30:70)	0.1436	<b>0.2553</b>	0.2861	<b>0.3330</b>	0.2545
	3. On The Job Training (one year)	0.2320	0.2498	0.2312	0.2390	0.2380
	4. On the Job Training (six months)	0.2962	0.2475	0.1301	0.2116	0.2213

Continue (Table 2 . The Results Based on Government Agencies or Ministries)

Cluster	Strategy	Standardized				
		Ceficati on Body	Educa- tion	Tourism	Labour	Mean
End-users needs and wants	1. Knowledge	0.0894	0.1824	0.1606	0.1120	<b>0.1361</b>
	2. Skills	0.0914	0.1788	0.1628	0.0917	0.1312
	3. Attitude	0.1022	0.0915	0.1543	0.1148	0.1157
	4. Experience	0.0977	0.0922	0.1178	0.0883	0.0990
	5. Responsibility	0.1439	0.0886	0.0715	0.0875	0.0979
	6. Loyalty	0.1133	0.0608	0.0694	0.1331	0.0941
	7. <i>Dicipline</i>	0.0870	0.0608	0.0852	0.1140	0.0868
	8. Inisiatative	0.0967	0.0608	0.0714	0.1140	0.0857
	9. <i>Honesty</i>	0.1267	0.0608	0.0505	0.0812	0.0798
	10. <i>English</i>	0.0518	0.1233	0.0565	0.0634	0.0737
Job Division	1. Tour Leader	0.3073	0.2873	0.2407	0.2256	<b>0.2652</b>
	2. Travel Consultant	0.1728	0.2482	0.3002	0.2756	0.2492
	3. Tour Guide	0.1656	0.2873	0.2977	0.2315	0.2455
	4. Tour Planner	0.3544	0.1773	0.1613	0.2673	0.2401
Asesment per semester (formative and summative)	1. Cluster 5 semester 5	0.2175	0.2000	0.1588	<b>0.3021</b>	<b>0.2196</b>
	2. Cluster 4 semester 4	<b>0.2621</b>	0.2000	0.1439	0.2305	0.2091
	3. Cluster 1 semester 1	0.1220	0.2000	<b>0.3620</b>	0.1331	0.2043
	4. Cluster 2 semester 2	0.1707	0.2000	0.2326	0.1431	0.1866
	5. Cluter 3 semester 3	0.2278	0.2000	0.1027	0.1913	0.1804
	6. Attitude	0.3537	0.3599	0.3288	0.3549	0.3493
Out Put	1. Work-Experience	0.2424	0.2505	0.1887	0.1909	<b>0.2181</b>
	2. Skills	0.2155	0.2090	0.1945	0.2464	0.2163
	3. Knowledge	0.1884	0.1807	0.2880	0.2078	0.2162
Outcome	1. Certificate fifth level	0.4667	0.3333	0.5078	0.4000	<b>0.4270</b>
	2. Competency fifth level	0.4667	0.3333	0.2789	0.3000	0.3447
	3. Diploma	0.0667	0.3333	0.2133	0.3000	0.2283

The results of priorities as stated in Table 2 are Skills for competency parameter, CBT for certification scheme, Laboratorium for learning infrastructure, Curriculum and syllabus for learning planning. In terms of delivery the qualified experienced lecturer in qualification of lecturer, and Self practice in learning process. On the other hand, in quality assurance, the assessment at semester 5 for the fifth cluster to complete the fifth level is prioritized. While End-users prefer the knowledge as the priority for tour leader as the prioritized job.

This result, together with other input from situational analysis take a system modelling process to create the ultimate goal of this research. At first a root definition is made. The PQR formula as invented by Checkland deployed (Jackson 2003). The formula element P represents "what activity must be done to achieve the goal". In this case, the activity is certification scheme. The Q represents "how to achieve the targeted goal (Maani & Cavana 2000)".

The last one is R that represent "why should be done". In this case the achievement of fifth level of national qualification framework in tours and travel diploma. The previous conceptual thinking framework in Picture 1 indicating that final goal is a competent student at level five, prior to their graduation. It is therefore, a root definition formula arranged as follows : "A certification system that participating student and government agencies in a college of tours and travel diploma three that comply with all requirements needed is able to obtain fifth level of national qualification framework by consistency, Imparsiality and effctive management". Based on this root definition, the rich picture is drawn in Figure 2, below. The rich picture drawn based on logical thinking process in accordance with the previous results from ANP method (Dettmer 2007).

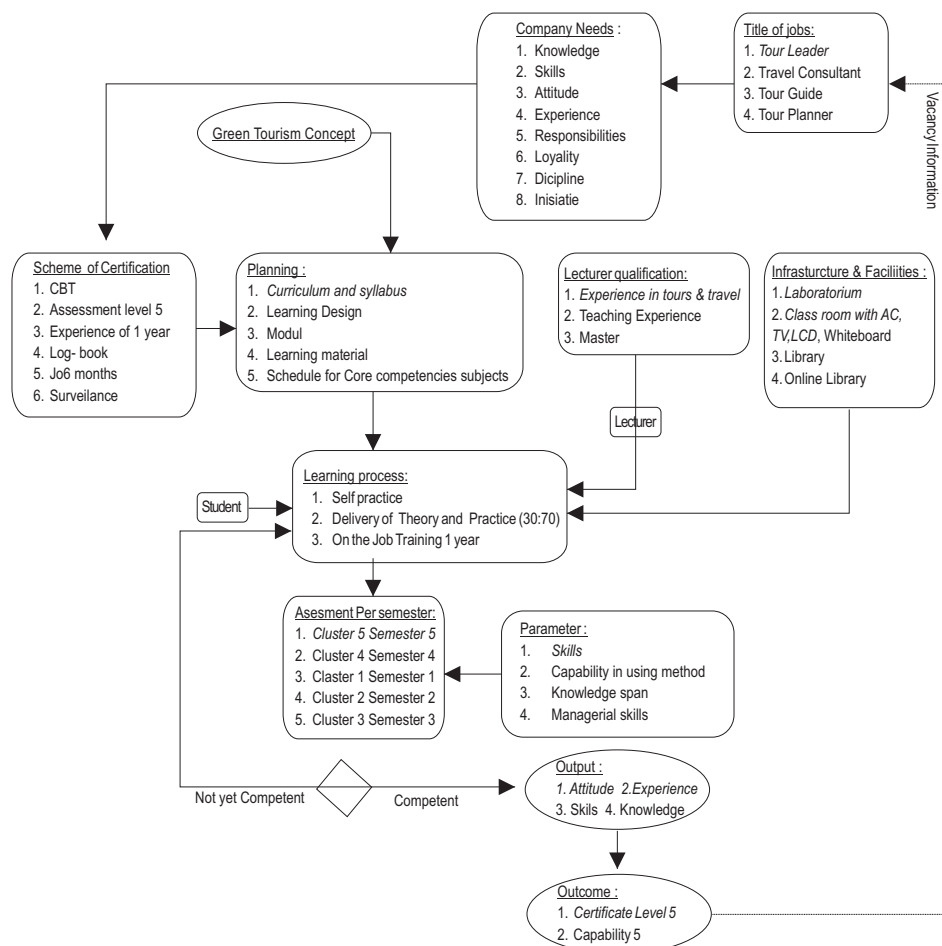


Figure 2. Rich Picture of model development for fifth level



The third process of transformation takes a focus group discussion with experts. There are six persons of experts participated in this discussion with nine elements concluded. The first category of element is student. Student as the main actor to participate in the process to obtain qualification framework at level five. The second category of actors are related government agencies. The government from ministry of education, labour, tourism, standard body, certification body, accreditation body. The third actor is end-user of tours & Travel companies and the fourth is tourism college. The relationships among them in unity were iterated until mutually agreed. This picture then validated by method of face validation with two persons of experts. The final model as the finding of this research is drawn in Figure 3.

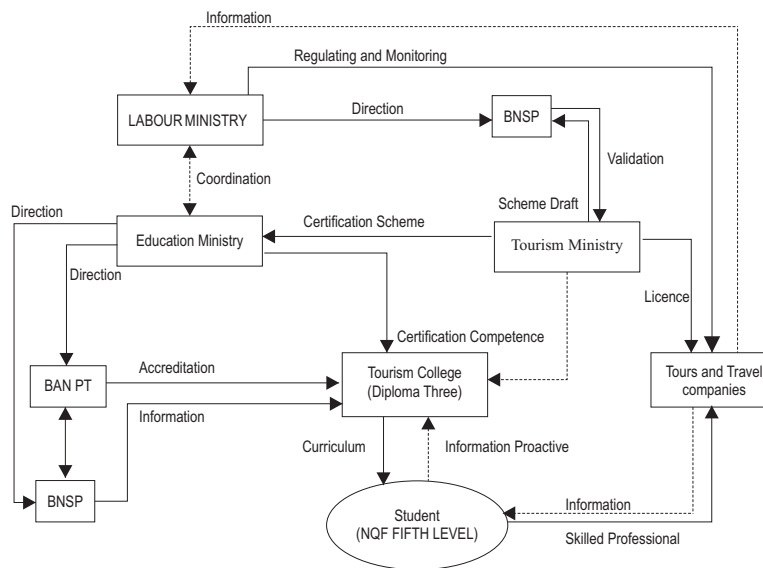


Figure 3. Model of fifth level of national qualification framework

#### 4. Policy Implication

Since the state law Number 12 in 2012 has declared firmly that NQF is the reference of quality in higher education, other regulations and guidelines shall prepare for the change. The tourism college will then follow the new guidelines. On the other hand, Ministry of Labour and Transmigration shall follow up the existing NQF regulations with the impact of application guidelines including recruitment and remuneration. These relationship and individual role of actors are stated clearly in Table 3.

Table 3. The Role and The Interrelation Among Elements

NO	ELEMENTS	ROLE AND INTERRELATIONSHIP
1	Ministry of Education	To set up the implementation guidelines of competency Standards in qualification framework and guidelines in core competencies to achieve fifth level, nationally.
2	National Education Standar Body	To review and develop guidelines of content, curriculum, infrastructure, lecturer and assessment standard to be competency based standards.
3	National Higher Education Accreditation Body	To conduct accreditation audit based on competency qualification framework requirements.

Continue (Table 3. The Role and the Interrelation Among Elements)

NO	ELEMENTS	ROLE AND INTERRELATIONSHIP
4	Ministry of Tourism	To develop fifth level certification scheme in coordination with National Certification Body.
5	National Certification Body	To conduct intensive coordination with all elements especially Ministry of Tourism, Labour, and Education for fifth level qualification framework implementation.
6	Ministry of Labour	To develop guidelines on labour recruitment and remuneration system for qualification framework.
7	Tourism College	To conduct competency training and assesment based in cooperation with end-users to confirm the needs and wants and Certification Body to assess every semester and at the end of semester five.
8	Tours and Travel Companies	To provide access of on the job training in compliance with the student progress as stated in their individual log-book and to provide information on job vacancy.
9	Student	To study, practice, recording all self practice results in cooperation with tutor assigned, to undertake a proper on the job training in compliance with the competency earned.

#### 4. Conclusion and Suggestion

##### 4.1. Conclusion

A policy model to develop fifth level qualification framework in tours and travel diploma is applicable when all related parties take part at the same speed and actions that enables student to reach this level at his/her own passion in the accredited college. The accredited college of tourism must prepare competence based training and assessment with its prerequisites, implement all unit competencies to form fifth level. The student and coach shall sit together to plan, to fill all necessary forms including self assessment form that could be supplied by certification body. To match with the self assesment, the log book shall be given at the same time. This is the revolution on knowledge, skill, attitude and experiences transfer.

##### 4.2. Suggestion

Due to limitation of this study, it is suggested to conduct a further research on a higher level in tours and travel, and this study can be made as one of the reference.

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